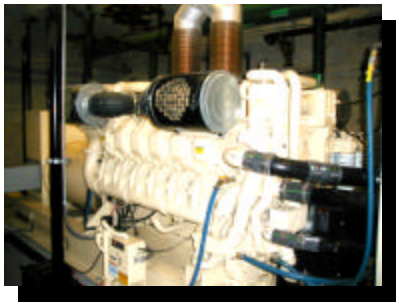
Public Hearing to Consider the Adoption of the Airborne Toxic Control Measure to Reduce Diesel Particulate Matter Emissions from Stationary Engines

(Continued from the December 11, 2003 ARB Board Meeting)



February 26, 2004

California Environmental Protection Agency

Air Resources Board

ATCM Development Process

- **Began process in 2001**
- **Held eight Public Workshops**
- **Coordination with CAPCOA Working Group**
- **Ongoing consideration of verbal and written comments**
- **Two Public Board Meetings: November and December 2003**

Objectives in Developing the Proposed ATCM

- Establish diesel PM emission standards or engine operational limits that are based on the use of best available diesel PM control technologies and lowest-emitting diesel engines
- Consider contribution to overall ambient PM and risk levels, potential near source risk, and the cost of controls when establishing emission standards or operational limits

ATCM Requirements Can Be Met Through The Use of Best Available Control Strategies

- **Restrict Operation**
  - Maintenance and Testing Hours of Emergency Standby Engines
- **Retrofit**
  - DOCs and DPFs
- **Replace**
  - New Off-Road Certified Engines
- **Retire**
  - Non-Diesel Alternatives

Estimated Cost Impacts Associated with Compliance Options

- Capital Costs
  - Diesel Particulate Filter: $38/hp
  - Diesel Oxidation Catalyst: $10/hp
  - New Engine: $93/hp
- Cost Savings for Emergency Standby Engines
  - Reduce hours of operation: fuel savings
- Cost-Effectiveness
  - $15/lb. of diesel PM reduced

Air Quality Benefits Include Reduced Diesel PM and Criteria Pollutant Emissions

- An 80% reduction in diesel PM by 2020
- Avoid 121 premature deaths
- Reduced cancer risk to all receptors reduced

Summary of Proposed 15-Day Changes

- **Additional Language Addressing**
  - Engines Near Schools
  - Remote Engines
  - Demand Response Engines
- **Modifications to Existing Language**
  - Exemption for Nuclear Facilities
  - Exemption for Turbine Starter Engines
  - Other Changes
- **Clarifications and Corrections**
  - District-Specific Phased-In Compliance Schedule
  - Use of Emergency Standby Engines During Maintenance of Power Distribution Equipment

Proposal for Stationary Engines Near Schools

- Emergency standby engines located near or at schools not permitted to conduct maintenance and testing operation during school hours
  - "School" limited to Kindergarten through Grade 12
  - "Near" means within 500 feet
  - "School hours" means 7:30 a.m. to 3:30 p.m.
- Restriction does not apply if engine emits diesel PM emissions at a rate of 0.01g/bhp-hr or less

Stationary Engines in Remote Locations

- District may allow for implementation delay for engines in remote locations
- "Remote Location" means greater than 1 mile from any receptor location
- Delay applies only to in-use prime engines
- Additional risk-based criteria established to ensure public health protection

Stationary Engines Used in Demand Response Programs

- Demand Response Programs allowed under the proposed ATCM are only triggered if blackouts are imminent or already triggered
- Emergency standby engines will be allowed to be used in two types of DRPs
  - Interruptible Service Contracts (ISC)
  - SDGE's Rolling Blackout Reduction Program (RBRP)
- Engines enrolled in these DRPs will
  - Meet stringent emission limits
  - Be limited in their hours of operation
  - Be subject to additional recordkeeping requirements
  - RBRP engines dispatched into service taking into account public health impacts

Modifications to Exemption for Emergency Standby Engines Operating at Nuclear Facilities

- **The exemption for emergency standby engines used for the safe shutdown of nuclear facilities is no longer contingent on meeting "additional criteria" defined by the District**

ARB Staff Proposes Exemption for Turbine Starter Engines

- **Diesel engines needed to start large CNG turbines**
- **Existing exemption for low-use prime engines too restrictive at 20 hours per year**
- **Turbine starter exemption would allow additional hours at the District's discretion**

ARB Staff is Proposing Language to Clarify That the Compliance Schedule is District-Specific

- Current language allows owners of three or more engines to phase-in compliance over more than one year
- Proposed language will clarify that phased-in compliance will be allowed for owners of three or more engines <u>located within the same district.</u>
  - Each District will implement and enforce its own rule based on the ATCM
  - No mechanism to coordinate compliance amongst different Districts

Other Changes

- Extending the District's maximum review time for approving or disapproving RBRP Dispatch protocols
- Extending the training-engine exemption to the Marine Corps and the Coast Guard
- Allowing for the limited use of emergency standby fire-pump engines for training purposes
- Clarifying how the ATCM addresses the operation of emergency standby engines during power transmission equipment maintenance operations

Staff's Recommendation

- **Approve the proposed ATCM with 15-day changes**